

Siyuan Jin

Clear Water Bay, Hong Kong, China

✉ siyuan.jin@connect.ust.hk Homepage: siyuan-bruce.github.io

EDUCATION

Hong Kong University of Science and Technology

Ph.D. of Information Systems, Supervisor: Prof. Kar Yan Tam

August 2024 - Now

Hong Kong University of Science and Technology

MPhil of Information Systems

August 2024

– Courses: Problem Formulation (Arun Rai), Econometrics (Ohchan Kwon, Liangfei Qiu), Experiment (Sussanna Ho), Survey (Elena Karahanna), Design Science (Andrew Burton-Jones)

South China University of Technology (2023 ARWU Ranking 100-150)

Bachelor of Economics (Major: Finance), GPA: 3.83/4.00 (Rank: 1/33)

July 2021

INDUSTRIAL EXPERIENCE

• **HSBC Hong Kong**

Research Consultant

November 2022 - Now

Hong Kong

• **HSBC Laboratory - Ventures, Innovation & Partnerships**

Full Stack Engineer: CBDC Research

July 2021 - August 2022

Guangzhou

• **HSBC IT Architecture**

Trainee: CBDC Research & Development

July 2020 - July 2021

Guangzhou

RESEARCH INTERESTS & METHODS

- FinTech, Blockchain, AI, Quantum Computing
- Enterprise IT Management
- Natural Experiment, Field Experiment, Quasi-Experiment, Survey Experiment, Design Science

AWARD / HONOR

- **HKUST Young Scientist Program Award** Dec 2024
- **Best Short Paper Nominee** International Conference on Information Systems (ICIS) Dec 2024
- **UGC/HKUST Hong Kong PhD Fellowship** Sep 2024 - July 2028
- **HKUST PhD Postgraduate Studentship** November 2022 - Sep 2024
- **HKUST Fintechstic NFT & Metaverse Competition Mentor** (Total 10 Mentors) November 2022
- **HSBC Annual Top Performer** (Top 5%) December 2021
- **HSBC Annual Role Model** (Top 5%) December 2021
- **Monetary Authority of Singapore** [Global CBDC Challenge Finalist](#) (Top 5%) November 2021
- **SCUT University-level Excellent Graduation Thesis** (Top 1%) 2021
- **SCUT China National Scholarship** (Top 0.1%-0.2%) 2020
- **SCUT First-Class Scholarship** (Top 1%) **Twice** 2018 & 2019

JOURNAL PUBLICATION

- [1] **Siyuan Jin**, Yong Xia, Butong Xu (2024). “Scalability meets Regulation: A UTXO-Based Sharding Approach with Zero-Knowledge Proof KYC for Regulated Digital Currencies”. *Cluster Computing*, 1-14.
- [2] Mianmian Zhang, Bing Zhu, Ziyuan Li, **Siyuan Jin**, and Yong Xia (2023). “Relationships among Return and Liquidity of Cryptocurrencies”. *Financial Innovation*, 10, 3.
- [3] **Siyuan Jin**, and Yong Xia (2022). “CEV Framework: A Central Bank Digital Currency Evaluation and Verification Framework”. *IEEE Access*, 10, 63698-63714.

SELECTED WORKING PAPERS

- [1] **Siyuan Jin**, Allen H. Huang, Zitong Li, Kar Yan Tam. “Do Users of Blockchain IT Infrastructure Value Environmental Sustainability? Evidence from Environmental Impact Disclosures”. [Working Paper]
 - MIS Quarterly Virtual Author Development Workshop (2024)
 - Greater Bay Area Finance Workshop (2024)
- [2] **Siyuan Jin**, Dongwon Lee, Keongtae Kim, and Kar Yan Tam. “When K-Pop Meets Blockchain: Consumer Engagement Through Voting in DAOs”.
 - International Conference on Information Systems (ICIS 2024) [Best Short Paper Nominee]
 - Conference on Information Systems and Technology (CIST 2024)
- [3] **Siyuan Jin**, Yong Xia, Kar Yan Tam. “The Spillover Effect of Agentic IT Reviewers on Code Contribution: Evidence from a Large-Scale Field Quasi-Experiment”. Working paper.
 - Conference on Information Systems and Technology (CIST 2024).
- [4] **Siyuan Jin**, Yuying Cai, Iris Qiu, Kar Yan Tam. “Operational Transparency in the Blockchain Era: Examining the Impact of Different Types and Levels on User Engagement”. Working Paper.
 - International Conference on Information Systems (ICIS 2024)
- [5] **Siyuan Jin**, Ying Hao, Hongfei Li, Keongtae Kim. “The Effect of Cancelling Invite-Only Policy: Evidence from A Natural Experiment”. Working Paper.
- [6] Marc Dordal i Carreras., Kohei Kawaguichi, **Siyuan Jin**, H. Guo. “Consumer Adoption and Perceptions of rCBDC: Insights from the Hypothetical e-HKD Pilot”. [Working Paper], Under Review.
- [7] Marc Dordal i Carreras, Kohei Kawaguichi, **Siyuan Jin**. “Informational Experiment on Consumer’s Perception of Central Bank Digital Currency as Liquidity Assets”. Working paper.
 - International Conference on Central Bank Digital Currencies and Payment Systems (2024).
 - Dordal i Carreras, Marc , Si Yuan Jin and Kohei Kawaguchi. 2024. "Informational Experiment on Consumer’s Perception of Central Bank Digital Currency as Liquidity Assets." AEA RCT Registry. April 16. <https://doi.org/10.1257/rct.12893-1.0>
- [8] **Siyuan Jin**, Kar Yan Tam, Qiming Shao, Y Huang, and Yong Xia. “Extensional Representation Encoding for Quantum Monte Carlo Simulation: A Design Science Approach”. Under Review.
- [9] Yichi Zhang, **Siyuan Jin**, Bei Zeng, Qiming Shao. “Quantum Token via Cloud: A Practical and Post-Quantum Digital Token Protocol”. Under Revision.

PEER-REVIEWED CONFERENCES (FIRST AUTHOR)

- [1] **Siyuan Jin**, Yuying Cai, Iris Qiu, and Kar Yan Tam. "Operational Transparency in the Blockchain Era: Examining the Impact of Different Types and Levels on User Engagement". International Conference on Information Systems, Bangkok, (**ICIS 2024**). *Short Paper, Acceptance Rate: 25%*.
- [2] **Siyuan Jin**, Dongwon Lee, Keongtae Kim, and Kar Yan Tam. "When Kpop Meets Blockchain: Consumer Engagement via Voting in DAOs". International Conference on Information Systems, Bangkok, Thailand, (**ICIS 2024**). *Short Paper, Acceptance Rate: 25%*.
- [3] **Siyuan Jin**, Dongwon Lee, Keongtae Kim, and Kar Yan Tam. "When Kpop Meets Blockchain: The Effect of DAO Voting on Consumer Engagement". Conference on Information Systems and Technology, Seattle, USA, (**CIST 2024**). *Short Paper, Acceptance Rate: 47%*.
- [4] **Siyuan Jin**, Kar Yan Tam, B. Chen, and Yong Xia. "Scalable Agency? The Spillover Effects of Agentic IT Reviewers on Code Contribution". Conference on Information Systems and Technology, Seattle, USA, (**CIST 2024**). *Short Paper, Acceptance Rate: 47%*.
- [5] **Siyuan Jin**, Ziyuan Li, B. Chen, Bing Zhu, and Yong Xia. "Software Code Quality Measurement: Implications from Metric Distributions". IEEE International Conference on Software Quality, Reliability, and Security, Chiang Mai, Thailand, (**QRS 2023**). *Short Paper, Acceptance Rate: 23.47%*
- [6] **Siyuan Jin**, B. Xu, P. Intallura, and Yong Xia. "A UTXO-based Sharding Method for Stablecoin". IEEE International Conference on Blockchain Computing and Applications, San Antonio, USA, (**BCCA 2022**). *Short Paper, Acceptance Rate: <30%*.
- [7] **Siyuan Jin**, Z. Bei, B. Chen, and Yong Xia. "Breaking the Cycle of Recurring Failures: Applying Generative AI to Root Cause Analysis in Legacy Banking Systems". International Workshop on Cloud Intelligence, Ottawa, Canada, (**AIOps 2025**). *Technical Paper*.

WORKSHOP PRESENTATION

- [1] The Workshop on E-Business (WoB) Bangkok, Dec 2024
- [2] Greater Bay Area Finance Workshop Shenzhen, November 2024
- [3] MIS Quarterly Virtual Author Development Workshop Online, Jun 2024
- [4] CNAIS-UNNC Paper Development Workshop Ningbo, Jun 2024
- [5] HKUST Business School PhD Student Conference Hong Kong, May 2024
- [6] International Conference on Central Bank Digital Currencies and Payment Systems Hong Kong, Apr 2024

POLICY PAPER PUBLICATION

- [1] Joint with HKUST SBM and HSBC Holdings plc (2023). "e-HKD Pilot Programme". Link to the [summary](#) cited by the [Hong Kong Monetary Authority](#).
- [2] Yong Xia, **Siyuan Jin**, Bing Qu, Y. Liu, Y. Zhen. Joint with HSBC Bank (Singapore) Limited (2021). "Global CBDC Challenge Report". The report from [Monetary Authority of Singapore](#).
- [3] **Siyuan Jin**, Allen Huang, and HSBC HK (2024). "Tokenized Deposit". Working whitepaper.
- [4] **Siyuan Jin**, Allen Huang, Kar Yan Tam, Y. Liang (2024). "Unified Ledger". Working whitepaper.
- [5] **Siyuan Jin**, Allen Huang, Kar Yan Tam, D. Lou (2024). "Tokenized Form of Money". Working whitepaper.

INTERNATIONAL PATENT

- [1] Bing Zhu, Yong Xia, Ziyuan Li, **Siyuan Jin**. (2024). "Network Analysis using optical quantum computing". International Bureau, World Intellectual Property Organization. **Publication No. WO2024/007565 A1**.
- [2] **Siyuan Jin**, Yong Xia. (2024). "Method for implementing network consensus algorithm". International Bureau, World Intellectual Property Organization. **Publication No. WO2024/007483 A1**.
- [3] **Siyuan Jin**, Yong Xia. (2024). "Transaction Security for Multi-tier Transaction Networks". International Bureau, World Intellectual Property Organization. **Publication No. WO2024/007527 A1**.
- [4] **Siyuan Jin**, Yong Xia. (2024). "Blockchain transaction sharding for improved transaction throughput". International Bureau, World Intellectual Property Organization. **Publication No. WO2024/011707 A1**.

RESEARCH PROJECTS & FUNDING APPLICATIONS

- **Main Proposal Contributor, Research Impact Fund, \$10m**
Empowering Hong Kong Finance with A Quantum Algorithm Platform
Coordinator: Prof. Yingying Li. Dec 2023 - Now
- **Proposal Contributor, Research Grants Council Fund, \$8m**
RegTech - Design of CBDC and Digital Assets in Hong Kong
Coordinator: Prof. Kar Yan Tam. July 2023 - Now

TEACHING EXPERIENCE

- **Teaching Assistant** "Coding for Business", ISOM 2020, HKUST Feb - Apr 2024
- **Lab Instructor** "Coding for Business", ISOM 2020 Lab, HKUST Sep - Oct 2023
- **Teaching Assistant** "Coding for Business", ISOM 2020, HKUST Feb - Apr 2023
- **Teaching Assistant** "Blockchain Introduction", SCUT Feb - May 2021

ACADEMIC SERVICE / OPEN SOURCE

- **Conference Reviewer**
 - Workshop on Information Technologies and Systems (WITS 2024 × 2)
 - International Conference on Information Systems (ICIS 2023 × 1; ICIS 2024 × 2)
 - Pacific Asia Conference on Information Systems (PACIS 2023 × 1)
 - Quantum Information Processing (QIP 2023 × 1)
- **Competition Reviewer**
 - 2024 HKUST One Million Dollar "AI+" Competition (× 20)
- **Journal Reviewer (Assisted)**
 - Management Science (MS × 1)
 - Journal of Management Information Systems (JMIS × 1)
 - Review of Accounting Studies (RAST × 1)
 - The Accounting Review (TAR × 1)
 - The ACM Computing Surveys (CSUR × 1)

- **Supervised Research Students**

- Qianyun Zeng (Part-Time Research Assistant for Blockchain Projects); November 2024 - Now
- Yao Li (Part-Time Research Assistant for Blockchain Projects); November 2024 - Now
- Jieliang Yin (Full-Time Research Assistant for CBDC Projects); Feb 2024 - Now
- Yaofu Liu (HKUST DDM Msc Student); Oct 2022 - Jun 2023; PhD Position in HKU
- Chang Xu (HKUST DDM Msc Student); Oct 2022 - Jun 2023; PhD Position in HKUST
- Jiahui Wu (HKUST DDM Msc Student); Oct 2022 - Jun 2023; PhD Position in HKUST
- Jiaxu Feng (Fudan University Undergraduate Exchange Student); Jun 2023 - Sep 2023; BCG

- **Organizer** IS Paper Sharing Series [\[Details\]](#)

Feb 2024 - now

- **Mentor** Data-Driven Modeling MSc Program Research Yearly Project

Oct 2022 - July 2024

- 7 M.Sc. students in total: 5 continue to conduct research work worldwide.
- Y. Liu received the DDM Best Presentation Award in 2023.

- **Open-Source Project Initiator**

- [Quantum Finance Literature](#)
- [CBDC Literature](#)

INVITED TALK

- [1] "Introduction to Financial Technology", *South China University of Technology*, Guangzhou, China. 2023
- [2] "A Central Bank Digital Currency Evaluation and Verification Framework", *Europe Innovation Community of Practice*, HSBC, Europe. 2022

LANGUAGE

- Mandarin (Native)
- English (Proficient, IELTS 7.5)
- Cantonese (Beginner)